

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-11 (Cancelled)

Claim 12 (Currently Amended): An isolated or purified nucleic acid comprising:

(a) a polynucleotide sequence encoding the polypeptide of SEQ ID NO: 2, or

(b) a polynucleotide sequence encoding a fragment of SEQ ID NO: 2 which inhibits mitosis and induces endoreplication

~~a sequence that hybridizes under stringent conditions to the full length complement of the coding portion of SEQ ID NO: 1 wherein the coding portion of SEQ ID NO: 1 encodes the full length CCS52Ms polypeptide of SEQ ID NO: 2, and that encodes a polypeptide that comprises WD-40 repeats and that inhibits mitosis and induces endoreplication, wherein stringent conditions in (b) comprise washing in 0.5X SSC at 65°C.~~

Claim 13 (Previously Presented): The nucleic acid of Claim 12 An isolated or purified nucleic acid which comprises a polynucleotide sequence encoding the polypeptide of SEQ ID NO: 2.

Claim 14 (Previously Presented): The nucleic acid of Claim [[12]] 13 that comprises polynucleotides 182 to 1609 of SEQ ID NO: 1.

Claim 15 (Currently Amended): The nucleic acid of Claim 12, which comprises a polynucleotide sequence which encodes a fragment of SEQ ID NO: 2 that inhibits mitosis and induces endoreplication

~~that hybridizes under stringent conditions to the full length complement of the coding portion of SEQ ID NO: 1 wherein the coding portion of SEQ ID NO: 1 encodes the full-length CCS52Ms polypeptide of SEQ ID NO: 2, and that encodes a polypeptide that comprises WD 40 repeats and that inhibits mitosis and induces endoreplication, wherein stringent conditions in (b) comprise washing in 0.5X SSC at 65°C.~~

Claims 16-19 (Cancelled)

Claim 20 (Previously Presented): The nucleic acid of Claim 12 that is isolated from a plant.

Claim 21 (Previously Presented): A vector comprising the nucleic acid of Claim 12.

Claim 22 (Previously Presented): The vector of Claim 21, wherein said nucleic acid is placed under the control of a promoter.

Claim 23 (Previously Presented): The vector of Claim 22, wherein said promoter is an inducible promoter, a constitutive promoter, a tissue-specific promoter or an ubiquitous promoter.

Claim 24 (Previously Presented): The vector of Claim 22, wherein said promoter is an inducible promoter.

Claim 25 (Previously Presented): The vector of Claim 22, wherein said promoter is a tissue specific promoter.

Claim 26 (Previously Presented): A host cell comprising the nucleic acid of Claim 12.

Claim 27 (Previously Presented): A plant cell that comprises the nucleic acid of Claim 12.

Claim 28 (Previously Presented): A transgenic plant comprising the nucleic acid of Claim 12.

Claims 29-31 (Cancelled)

Claim 30 (Currently Amended): A polynucleotide sequence which comprises the full complement of the polynucleotide sequence of SEQ ID NO: 1 or a fragment thereof which inhibits the expression of its complement.

~~nucleic acid that hybridizes to SEQ ID NO: 1 under stringent conditions, wherein stringent conditions comprise washing in 0.5X SSC at 65°C, and which inhibits the expression of the polypeptide of SEQ ID NO: 2, which is selected from the group consisting of the full complement of SEQ ID NO: 1, the full complement of the coding portion of SEQ ID NO: 1, and an antisense sequence consisting of the 1.2 kb *SstI-PvuII* fragment of SEQ ID NO: 1 when placed in the antisense orientation under the control of a promoter.~~

Claim 31 (Cancelled)

Claim 32 (Previously Presented): A vector comprising the nucleic acid of Claim 30.

Claim 33 (Previously Presented): The vector of Claim 32, wherein said nucleic acid is placed under the control of a promoter.

Claim 34 (Previously Presented): The vector of Claim 32, wherein said promoter is an inducible promoter, a constitutive promoter, a tissue-specific promoter or an ubiquitous promoter.

Claim 35 (Previously Presented): The vector of Claim 32, wherein said promoter is an inducible promoter.

Claim 36 (Previously Presented): The vector of Claim 32, wherein said promoter is a tissue specific promoter.

Claim 37 (Previously Presented): A host cell comprising the nucleic acid of Claim 32.

Claim 38 (Previously Presented): A plant cell that comprises the nucleic acid of Claim 32.

Claim 39 (Previously Presented): A transgenic plant comprising the nucleic acid of Claim 32.

Claim 40 (Previously Presented): The nucleic acid of Claim 12, wherein said sequence encodes a protein comprising amino acid residues 51-55 and 57 of SEQ ID NO: 2.

Claim 41 (Previously Presented): The nucleic acid of Claim 12, wherein said sequence encodes a protein comprising amino acid residues 81, 84, 85, 90 and 91 of SEQ ID NO: 2.

Claim 42 (New): The isolated or purified nucleic acid sequence of Claim 30, further comprising a promoter sequence which controls the expression of said complementary sequence.

Claim 43 (New): The isolated or purified nucleic acid sequence of Claim 30, which comprises the full complement of SEQ ID NO: 1 or the full complement of a fragment of SEQ ID NO: 1, and a promoter sequence which controls the expression of said nucleic acid sequence, wherein said nucleic acid sequence inhibits the expression of its complement when transformed into a cell.

Claim 44 (New): An isolated or purified nucleic acid sequence, which comprises the complement of the 1.2 kb *SstI-PvuII* fragment of SEQ ID NO: 1 and a promoter sequence which controls its expression.

Claim 45 (New): A method for regulating the differentiation and the proliferation of a plant cell, comprising transforming said plant cell with the polynucleotide sequence of Claim 12.

Claim 46 (New): A method for regulating the differentiation and the proliferation of a plant cell, comprising transforming said plant cell with the polynucleotide sequence of Claim 13.

Claim 47 (New): A method for regulating the differentiation or proliferation of a plant cell, comprising transforming said plant cell with the polynucleotide sequence of Claim 30.

Claim 48 (New): A method for regulating the differentiation or proliferation of a plant cell, comprising transforming said plant cell with the polynucleotide sequence of Claim 43.